

CLAIMS

Sub AP 1. A package for cylindrical articles, fabricated by wrapping a plurality of cylindrical articles assembled in parallel in a heat-shrinkable film, and heat-shrinking the film to fix and retain the articles, wherein

said film has a slit in at least either one of an upper end face and a lower end face of the package corresponding to an upper end and a lower end of said cylindrical articles in a portion thereof corresponding to a boundary between said adjacent cylindrical articles.

2. A method of fabricating a package for cylindrical articles, said package being fabricated by wrapping a plurality of cylindrical articles assembled in parallel in a heat-shrinkable film, and heat-shrinking said film to fix and retain the articles, said fabrication method comprising a step (a) of:

moving a V-shaped or U-shaped cutting jig with a double-sided blade up and down on said heat-shrinkable film located at an upper end face and/or a lower end face of said package corresponding to an upper end and/or a lower end of said cylindrical articles, and thereby forming slits in said heat-shrinkable film located at said upper end face and/or said lower end face at a boundary between said adjacent cylindrical articles.

3. The method of fabricating a package for

FOUO "00000000"

cyindrical articles in accordance with claim 2, further comprising a step (b) of forming a perforation in said heat-shrinkable film located on a side of said package, in which said cylindrical articles are assembled in parallel, along said boundary between said adjacent cylindrical articles.

4. The method of fabricating a package for cylindrical articles in accordance with claim 2, further comprising a step (c) of forming a perforation in said heat-shrinkable film in outermost portions of said upper end and said lower end of said package along said boundary between said adjacent cylindrical articles.

5. The method of fabricating a package for cylindrical articles in accordance with claim 3, wherein said slit forming step (a) is performed after performing said perforation forming step (b).

6. The method of fabricating a package for cylindrical articles in accordance with claim 4, wherein said step (b) and said step (c) are performed simultaneously.

7. A package for cylindrical articles, fabricated by wrapping a plurality of cylindrical articles assembled in parallel in a heat-shrinkable film, and heat-shrinking said film to fix and retain said articles,

wherein said film has a slit on a side of said package along a boundary between said adjacent articles,

FOUO 666666

and said film around said slit is curved in such a manner as to conform to outer circumferential surfaces of said cylindrical articles located adjacent to said boundary.

8. The package for cylindrical articles in accordance with claim 7, wherein said package includes an adhesive layer formed at least on inner surface of said film on a periphery of said slit.

9. The package for cylindrical articles in accordance with claim 7, wherein said adhesive layer is made of a heat sensitive adhesive agent.

10. The package for cylindrical articles in accordance with claim 7, wherein said slit is formed in said film on each side of said package.

11. The package for cylindrical articles in accordance with claim 7, wherein said slit is dimensioned within a prescribed range determined so that each individual cylindrical article does not fall out of said package even when said package is dropped.

12. The package for cylindrical articles in accordance with claim 7, wherein said package includes a perforation that connects a slit formed on one side of said package to a slit formed on the other side of said package.

13. The package for cylindrical articles in accordance with claim 7, wherein said slit is formed in said film on one side of said package, and a perforation connecting both ends of said slit is formed in said film on

TOP SECRET

the other side of said package.

14. The package for cylindrical articles in accordance with claim 7, wherein said film is in the form of a sheet and forms a welded portion at end portions thereof to wrap said articles together, and said welded portion is positioned on one side of said package.

15. The package for cylindrical articles in accordance with claim 7, wherein said film is in the form of a tube.

16. A method of fabricating a package for cylindrical articles, said package being fabricated by wrapping a plurality of cylindrical articles assembled in parallel in a heat-shrinkable film, and heat-shrinking said film to fix and retain said articles, wherein said film has a slit on a side of said package along a boundary between said adjacent articles, and said film around said slit is curved in such a manner as to conform to outer circumferential surfaces of said cylindrical articles located adjacent to said boundary, said fabrication method comprising the steps of:

(A) forming a slit and/or a perforation in the heat-shrinkable film in such a manner that said slit and/or said perforation are located in designated positions along the boundary between the adjacent cylindrical articles;

(B) wrapping said plurality of cylindrical articles assembled in parallel in said film;

FOIA b 7 - DOD

(C) cutting said film;

(D) heat-shrinking said film around said cylindrical articles; and

(E) curving said heat-shrinkable film along said boundary in such a manner as to conform to the outer circumferential surfaces of said adjacent cylindrical articles.

17. A composite battery package in which a plurality of unit packages, each fixing and retaining a plurality of cylindrical batteries assembled in parallel in a first heat-shrinkable film, are fixed and retained in parallel in a second heat-shrinkable film,

wherein at least one pore is formed in said second heat-shrinkable film in a portion thereof corresponding to an end portion of a boundary between said unit packages.

18. The composite battery package in accordance with claim 17, wherein said pore is provided at each end portion of said boundary on each side of said unit package.

19. The composite battery package in accordance with claim 17, wherein said first heat-shrinkable film has a higher melting point than that of said second heat-shrinkable film.

Patent 2,000,000